

CLAIMS

1. An anode, comprising:
a particulate anode active material; and
a particulate binder containing at least one from the group consisting of copolymers including vinylidene fluoride and polyvinylidene fluoride.
2. An anode according to claim 1, wherein an average particle diameter of the binder is 30 μm or less.
3. An anode according to claim 1, wherein the binder is fused by heating.
4. An anode according to claim 1, wherein the anode active material includes at least one from the group consisting of simple substances of elements capable of forming an alloy with lithium and compounds thereof.
5. An anode according to claim 1, which is formed by using an anode mixture slurry including: the anode active material; the binder; and a dispersion medium having a swelling degree of 10% or less to the binder.
6. An anode according to claim 5, which is formed by using an anode mixture slurry, wherein at least the binder is dispersed in the dispersion medium, and then the anode active material is dispersed.
7. An anode according to claim 5, which is formed by using an anode

mixture slurry, wherein an average particle diameter of the binder is 30 μm or less.

8. A battery, comprising:

a cathode;

an anode; and

an electrolyte, wherein

the anode includes: a particulate anode active material; and a particulate binder containing at least one from the group consisting of copolymers including vinylidene fluoride and polyvinylidene fluoride.

9. A battery according to claim 8, wherein an average particle diameter of the binder is 30 μm or less.

10. A battery according to claim 8, wherein the binder is fused by heating.

11. A battery according to claim 8, wherein the anode active material includes at least one from the group consisting of simple substances of elements capable of forming an alloy with lithium and compounds thereof.

12. A battery according to claim 8, wherein the anode is formed by using an anode mixture slurry including: the anode active material; the binder; and a dispersion medium having a swelling degree of 10% or less to the binder.

13. A battery according to claim 12, wherein the anode is formed by using an anode mixture slurry, wherein at least the binder is dispersed in the dispersion medium, and then the anode active material is dispersed.

14. A battery according to claim 12, wherein the anode is formed by using an anode mixture slurry, wherein an average particle diameter of the binder is 30 μm or less.

15. A method of manufacturing an anode, wherein the anode is formed by using an anode mixture slurry including: a particulate anode active material; a particulate binder containing at least one from the group consisting of copolymers including vinylidene fluoride and polyvinylidene fluoride; and a dispersion medium having a swelling degree of 10% or less to the binder.

16. A method of manufacturing an anode according to claim 15, wherein the anode is formed by using an anode mixture slurry, wherein at least the binder is dispersed in the dispersion medium, and then the anode active material is dispersed.

17. A method of manufacturing an anode according to claim 15, wherein an average particle diameter of the binder is 30 μm or less.

18. A method of manufacturing an anode according to claim 15, wherein the binder is fused.

19. A method of manufacturing an anode according to claim 15, wherein an anode active material including at least one from the group consisting of simple substances of elements capable of forming an alloy with lithium and compounds thereof is used.

20. A method of manufacturing a battery, comprising: a cathode; an anode; and an electrolyte, wherein the anode is formed by using an anode mixture slurry including: a particulate anode active material; a particulate binder containing at least one from the group consisting of copolymers including vinylidene fluoride and polyvinylidene fluoride; and a dispersion medium having a swelling degree of 10% or less to the binder.

21. A method of manufacturing a battery according to claim 20, wherein the anode is formed by using an anode mixture slurry, wherein at least the binder is dispersed in the dispersion medium, and then the anode active material is dispersed.

22. A method of manufacturing a battery according to claim 20, wherein an average particle diameter of the binder is 30 μm or less.

23. A method of manufacturing a battery according to claim 20, wherein the binder is fused.

24. A method of manufacturing a battery according to claim 20, wherein

an anode active material including at least one from the group consisting of simple substances of elements capable of forming an alloy with lithium and compounds thereof is used.